

UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF CALIFORNIA
San Francisco Division

CELLULOSE MATERIAL SOLUTIONS,
LLC,

Plaintiff,

v.

SC MARKETING GROUP, INC.,
Defendant.

Case No. 22-cv-03141-LB

**AMENDED ORDER DENYING
CELLULOSE SUMMARY JUDGMENT
ON CLAIM FOUR**

Re: ECF Nos. 185, 189

INTRODUCTION

Plaintiff Cellulose Material Solutions claims that defendant SC Marketing Group (which does business as Thermal Shipping Solutions) infringes Cellulose’s patent for packaging insulation that protects perishable products (such as food) without the need for refrigerant packs. The patent is U.S. Patent No. 11,078,007 (the ’007 patent). The parties are competitors. Cellulose’s insulation product is InfinityCore, and Thermal Shipping’s product is Renewliner, a “highly similar, if not identical” product. Cellulose sued Thermal under 35 U.S.C. § 271 for direct and indirect infringement of the ’007 patent and for false marking under 35 U.S.C. § 292 because Thermal (allegedly falsely) labeled its product “patent pending.”¹ Thermal counterclaimed for, among other claims, correction

¹ Compl. – ECF No. 1 at 1–2 (¶¶ 1, 3), 3 (¶ 25), 4 (¶ 16), 6 (¶¶ 25, 30), 7–12 (¶¶ 36–63); U.S. Patent No. 11,078,007 (filed June 27, 2016) – ECF No. 1-1. Citations refer to material in the Electronic Case File (ECF); pinpoint citations generally are to the ECF-generated page numbers at the top of documents and, with depositions, to the deposition page numbers and lines).

of inventorship under 35 U.S.C. § 256 (claim four) on the ground that its principal Sal Cardinale contributed to the technology and was wrongly omitted as an inventor.²

Cellulose moved for summary judgment on the ground that Mr. Cardinale’s allegedly inventive acts took place in July 2015, after Cellulose conceived of the product that it ultimately protected with the ’007 patent.³ Thermal counters that Mr. Cardinale made his inventive contributions — including (1) adhering thermoplastic film to both sides of the product’s thermoplastic core, forming a laminate that can be folded without creases, shipped compressed, and expanded resiliently, and (2) manufacturing the product entirely from PET to allow for curbside recycling — during the parties’ 2015 business relationship, and Cellulose applied for its patent only after the relationship foundered and then knowingly omitted Mr. Cardinale as an inventor.⁴

There is a triable issue of disputed fact on inventorship. The court denies Cellulose’s motion for summary judgment motion on claim four.

STATEMENT

1. The Patent

The ’007 patent (titled “Thermoplastic Packaging Insulation Products and Methods of Making and Using Same”) was filed on June 27, 2016, and issued on August 3, 2021. It lists the inventors: Kevin Chase, Brandon Fenske, Christopher Benner, and Matthew Henderson.⁵ It relates to an improved insulation product that protects perishable products during shipment.⁶ Prior insulation products were semi-rigid expanded styrene panels or polymer or paper bags stuffed with cotton.⁷ The ’007 patent describes an insulation system comprised of a batt (a core) made of thermoplastic

² Countercls. – ECF No. 85 at 9 (¶ 28), 10 (¶¶ 32–34).

³ Mot. – ECF No. 185 at 6, 11.

⁴ Cross-Mot. – ECF No. 189 at 5–6.

⁵ ’007 Patent – ECF No. 1-1 at 2.

⁶ *Id.* at 2 (at [57]), 10 (col. 1 ll. 23–34).

⁷ *Id.* at 10 (col. 1 ll. 16–19).

1 fibers with thermoplastic film adhered to the batt's sides (like a sandwich). The insulation can be
 2 shipped flat and compressed. It expands when it is unpacked and can be folded "readily" to match
 3 the inside of a packing box.⁸ The motions reference independent claims 1, 20, and 23 and
 4 dependent claims 3 and 4 (referencing claims 2 and 3, respectively).⁹

5 Claim 1 of the patent recites the following:

6 1. A method for insulating packaging containers comprising: providing a flat
 7 laminated packaging insulation which is of uniform thickness, resiliently
 8 compressible and foldable, cut to size for locating in a packaging container, said
 9 packaging insulation comprising an air laid thermoplastic fibrous batt comprised
 10 primarily of thermoplastic fibers, said batt being of uniform thickness, resiliently
 11 compressible and foldable, and having foldable thermoplastic film material adhered
 12 to both sides of said batt to form a laminate which can be folded without the need
 for creases, grooves[,] or cut lines in said laminate to facilitate folding, whereby
 said laminated packaging insulation can be manufactured, compressed[,] and
 shipped as a flat panel of uniform thickness, and allowed to resiliently expand and
 be folded for insertion into a packing container.

13 Claim 2 recites the following:

14 2. A method of claim 1 wherein said fibrous batt includes from about 5 to about
 15 30% thermoplastic binder fibers mixed with and adhered to at least some of said
 thermoplastic fibers.

16 Claim 3 recites the following:

17 3. The method of claim 2 in which said thermoplastic fibers, said thermoplastic
 18 binder fibers, and said thermoplastic film are all made of the same thermoplastic
 19 polymer material, whereby said packaging insulation used may be readily
 commercially recycled.

20 Claim 4 recites the following:

21 4. The method of claim 3 wherein said thermoplastic material is PET.¹⁰

22 Claim 20 recites the following:

23 20. A package insulation material comprising: a flat laminated packaging insulation
 24 which is of uniform thickness, resiliently compressible and foldable, cut to size for
 25 locating in a packaging container, said packaging insulation comprising a
 thermoplastic fibrous batt comprised primarily of thermoplastic fibers, said batt

26 ⁸ *Id.* (col. 1 ll. 23–31).

27 ⁹ Cross-Mot. – ECF No. 189 at 11; Reply – ECF No. 191 at 4.

28 ¹⁰ '007 Patent – ECF No. 1-1 at 11 (col. 4 ll. 19–44).

being of uniform thickness, resiliently compressible and foldable, and having foldable thermoplastic film material adhered to both sides of said batt to form a laminate which can be folded without the need for creases, grooves[,] or cut lines in said laminate to facilitate folding, whereby said laminated packaging insulation can be manufactured, compressed[,] and shipped as a flat panel, and allowed to resiliently expand and be folded for insertion into a packing container.¹¹

Claim 23 recites the following:

23. A product shipping combination comprising: a packaging container; a flat laminated packaging insulation which is of uniform thickness, resiliently[,] compressible and foldable, being cut to size for folding and locating in said packaging container, said packaging insulation comprising an air laid PET [polyethylene] fibrous batt comprised primarily of PET fibers, said batt being of uniform thickness, resiliently compressible and foldable, and having foldable PET film material adhered to both sides of said batt to form a laminate which can be folded without the need for creases, grooves[,] or cut lines in said laminate to facilitate folding, whereby said laminated packaging insulation can be manufactured, compressed[,] and shipped as a flat panel, allowed to resiliently expand and be folded for insertion into said packing container; said laminated packaging insulation being folded and inserted into said packaging container.¹²

The original independent claims in the patent application did not include the following requirements that appear in the final claims:

“insulation which is of uniform thickness and resiliently compressible and foldable;” “said batt being of uniform thickness, resiliently compressible and foldable;” “a laminate that can be folded without the need for creases, grooves or cut lines in said laminate to facilitate folding;” or “whereby said laminate packaging insulation can be manufactured, compressed and shipped as a flat parcel of uniform thickness, and allowed to resiliently expand and be folded for insertion into a packaging container.”¹³

Cellulose added them after the USPTO issued an office action with indefiniteness and obviousness citations.¹⁴

¹¹ *Id.* at 12 (col. 5 ll. 30–43).

¹² *Id.* (col. 6 ll. 19–34).

¹³ Parachuru Expert Rep., Ex. 31 to Mays Decl. – ECF No. 189-32 at 3 (¶ 112) (citing claims 1, 20, and 23).

¹⁴ *Id.* at 3–9 (¶¶ 113–132).

2. Other Facts Relevant to Inventorship

Both parties produce packaging-insulation products.¹⁵ The issue is Thermal’s alleged infringement of the ’007 patent related to insulation. Its principal Mr. Cardinale asserts that he contributed to the following inventive aspects of the patent: (1) adhering thermoplastic film to both sides of a thermoplastic fibrous batt (meaning, again, the core of the insulation); (2) forming a laminate that can be folded without the need for creases, grooves, or cut lines; (3) shipping the insulation compressed and allowing it to resiliently expand; and (4) making the insulation entirely of PET — polyethylene terephthalate, a manipulable thermoplastic polyester — to allow for curbside recycling.¹⁶ The parties identify the following evidence as relevant to the inquiry of whether there are disputes of material facts about the four categories of alleged inventive contributions.

In April 2014, Mr. Cardinale called Cellulose to ask “about their desire to serve as a manufacturing partner” for a new product line for packaging for perishables. He understood that Cellulose did not have any “cold-chain” products at the time. Cellulose was interested.¹⁷ According to Cellulose, in May 2014, Thermal came to Cellulose for packaging solutions because Thermal then manufactured nothing itself.¹⁸ Over the next months, the parties discussed different packaging solutions, including cotton and recyclable denim products.¹⁹ For example, in October 2014, Cellulose sent denim samples.²⁰

Thermal asserts that it began developing recyclable package liners (eventually named Renewliner) in early 2015. Its plastic film supplier Tim Wilson recalls talking with Mr. Cardinale

¹⁵ Cardinale Decl. – ECF No. 189-34 at 2 (¶ 2); Henderson Decl. – ECF No. 185-3 at 3 (¶ 3).

¹⁶ Mot. – ECF No. 189 at 5–6 (also has definition for PET, which the court judicially notices); Cardinale Decl. – ECF No. 189-34 at 5 (¶ 15).

¹⁷ Cardinale Decl. – ECF No. 189-34 at 2 (¶ 3).

¹⁸ Henderson Decl. – ECF No. 185-3 at 2 (¶ 3) & Emails, Ex. A to *id.* – ECF No. 185-3 at 6–8 (Thermal asked for samples of the insulation).

¹⁹ Henderson Decl. – ECF No. 185-3 at 3 (¶ 4); Henderson Dep., Ex. 4 to Mitchell Decl. – ECF No. 185-5 at 5 (pp. 23:12–24:24).

²⁰ Emails, Ex. 3 to Mays Decl. – ECF No. 189-4 at 2–3.

1 about paper-based solutions in early 2015.²¹ He “believe[s that he] spoke with Sal Cardinale prior to
 2 June 2015 about his idea for both a paper-based package liner as well as a PET-based package liner.
 3 His idea was to give customers a choice between paper or plastic — just like in a grocery store. Mr.
 4 Cardinale envisioned that both packaging products would be curbside recyclable.”²² In June 2015,
 5 Mr. Wilson spoke with Mr. Cardinale “about his ideas for recyclable packaging. One of his ideas
 6 was for a PET batt with PET film adhered to opposing sides of the batt. My impression . . . was that
 7 Mr. Cardinale had conceived of this idea.”²³ Mr. Cardinale explained that he had experimented with
 8 ironing PET film to one or both sides of a PET batt and eventually went with Mr. Wilson’s
 9 recommendation of using a PET film with a heat seal coating.²⁴

10 On June 4, 2015, Cellulose’s Chris Benner (an inventor) sent an email to Thermal with the
 11 subject “Patentable Concept for 1-piece insulated shipper inserted into a box,” attaching photos of
 12 a denim product, and saying that it was sharing “this confidential information as part of our
 13 collaboration efforts to secure this (50,000+) units per week worth of new business. . . . We can
 14 discuss joint filing to protect both of our company’s interests?”²⁵

15 According to Cellulose, there was no indication in the parties’ correspondence of any PET option
 16 until June 19, 2015, when Cellulose emailed Mr. Cardinale about a new insulation solution for the
 17 mailers that Mr. Cardinale had asked him to look at.²⁶ The genesis of the solution was Cellulose’s
 18 development in the first half of 2015 of an insulation comprised of a non-woven fibrous batt made of
 19 PET fibers with a foldable PET film on each side.²⁷ By around May 2015, it was testing (on the
 20 production line) how to adhere the film to the batt by putting samples of the film through its
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23 ²¹ Wilson Dep., Ex. 5 to Mays Decl. – ECF No. 189-6 at 4 (p. 33:8–18).

24 ²² Wilson Decl. – ECF No. 189-33 at 2 (¶ 2).

25 ²³ *Id.* (¶ 3).

26 ²⁴ *Id.* (¶ 4).

27 ²⁵ Email, Ex. 6 to Mays Decl. – ECF No. 189-7 at 2–11.

28 ²⁶ Henderson Decl. – ECF No. 185-3 at 4 (¶ 10).

²⁷ *Id.* at 3 (¶ 5); Henderson Dep., Ex. 4 to Mays Decl. – ECF No. 185-5 at 9 (pp. 41:13–42:25), 10 (p. 50:15–21).

laminator onto the PET material to see if it adhered.²⁸ By June 18, 2015, according to Mr. Henderson, Cellulose was running samples with PET film sourced from a third party (Lenderink) adhered to both sides of the batt.²⁹ Thus, by June 19, Cellulose emailed Mr. Cardinale with an insulation solution for Thermal's customer Hello Fresh, mentioning that the product was recyclable and highly compressible and could be a cost-effective solution to "your Kangaroo mailers you asked me to look at."³⁰ (The Kangaroo mailer was a Thermal product that shipped compressed and expanded before customers used it, but it was not recyclable. Thermal had manufactured it since the patent expired, and Mr. Cardinale wanted to explore a greener solution for use with the Kangaroo mailer.³¹)

Mr. Henderson also said in his deposition that before 2015, Cellulose had not adhered PET film to a fibrous batt, let alone a two-sided fibrous batt.³²

On June 24, 2015, Cellulose sent an email to Thermal with the subject "New urethane replacement material for TSS in t-cooler shape" and attached photographs of eighty-five-percent content polyester material.³³ They do not show a batt with film attached to both sides or a product that was one-hundred-percent PET, foldable without the need for creases, grooves, or cutlines. It was not a viable solution for Thermal because it was not curbside recyclable and did not have sufficient insulation qualities.³⁴ Shortly thereafter, Mr. Cardinale explained to Cellulose's Chris Benner his solution that they adhere PET film to the batt. He then contacted his supplier Tim Wilson to obtain PET film samples.³⁵

²⁸ Henderson Dep., Ex. 4 to Mays Decl. – ECF No. 185-5 at 11–12 (pp. 72:3–73:8) (occurred in 2015; "[s]itting right here, I can't for sure say, but I think it was in . . . May of 2015. I'm almost sure it was May of 2015").

²⁹ *Id.* at 12–13 (pp. 75:24–77:1); Production Form, Ex. B to Henderson Decl. – ECF No. 185-3 at 10.

³⁰ Email, Ex. 5 to Mays Decl. – ECF No. 185-6 at 2.

³¹ Cardinale Decl. – ECF No. 189-34 at 2–3 (¶¶ 5–7) (Cellulose's Chris Brenner (an inventor) was not familiar with the Kangaroo mailer).

³² Henderson Dep., Ex. 2 to

³³ Email, Ex. 8 to Mays Decl. – ECF No. 189-9 at 2–4.

³⁴ Cardinale Decl. – ECF No. 189-34 at 3 (¶ 8).

³⁵ *Id.* (¶¶ 9–10).

On July 3, 2015, Mr. Cardinale emailed Mr. Wilson that “[o]ur plan is to sell all customers on this new material, faced on both sides, with exposed edges. This product offers 100% recyclability as well as all the benefits of single process inline manufacturing.”³⁶ Mr. Wilson had questions about what this meant, and Mr. Cardinale explained that Thermal was focusing on a PET batt with PET film adhered to both sides. Mr. Wilson then “began supplying PET film for that purpose.”³⁷

In a July 6, 2015, email to Cellulose, Thermal encouraged the addition of the second-side laminator required for the polyester because it was “a worthwhile investment as we see a future in open-edge Ts and ABs for different customers.” Cellulose responded that it was trying to acquire an additional rotary die cutter.³⁸

On July 20, 2015, following a call with Cellulose’s Chris Benner, Mr. Wilson sent a follow-up email to provide more information about the PET liner that he was sending on behalf of Thermal, including instructions on how to adhere the film to the batt. His impression was that applying PET film to both sides of a PET batt was new to Cellulose and that bolstered his belief that Mr. Cardinale thought of the idea.³⁹ The next day, Mr. Benner told Thermal that he had adhered the film to the denim batt.⁴⁰ The day after that, he reported that there was some wrinkling in the printed polyester film that might be a random variable that could not be eliminated.⁴¹ Mr. Benner and Mr. Cardinale had a call that night, and the next day, Mr. Benner emailed Mr. Cardinale photos of an “un-faced, thermally skinned option with in-line water jet cut edges.”⁴²

³⁶ Emails, Ex. 30 to Mays Decl. – ECF No. 189-31 at 2.

³⁷ Wilson Decl. – ECF No. 189-33 at 2 (¶ 5).

³⁸ Emails, Ex. 10 to Mays Decl. – ECF No. 188-5 at 2–3.

³⁹ Wilson Decl. – ECF No. 189-33 at 3 (¶ 6). The declaration says July 6, but the cross-motion references July 20 emails, which are an exhibit. Cross-Mot. – ECF No. 189 at 9; Emails, Ex. 11 to Mays Decl. – ECF No. 189-12 at 2–3.

⁴⁰ Email, Ex. 12 to Mays Decl. – ECF No. 189-13 at 2.

⁴¹ Email, Ex. 13 to Mays Decl. – ECF No. 189-14 at 2.

⁴² Email, Ex. 14 to Mays Decl. – ECF No. 187-2 at 2–5; Cardinale Decl. – ECF No. 189-34 at 4 (¶ 11) (describing Cellulose’s lack of manufacturing capabilities in 2015 for laminating on both sides of the batt, Mr. Benner’s assertions that adhering PET film to one side was enough, and after Mr. Cardinale pushed back, Cellulose modified its factory line to enable lamination on both sides).

1 According to Thermal, from June to August 2015, it tested adhering polyester film (supplied
2 by Mr. Wilson) to unfaced polyester batts sent by Cellulose.⁴³ There are emails between the
3 parties recounting testing a “lighter” version with a more uniform thickness.⁴⁴

4 The parties had discussions on September 3, 2015, about costs of a two-sided material addition
5 needed to ensure a safe and regulatory-compliant assembly.⁴⁵

6 On November 10, 2015, Thermal placed an order with Cellulose for PET facings applied to
7 both sides of polyester insulation. Mr. Benner said that Cellulose needed to conduct a trial run to
8 ensure production quality.⁴⁶ On December 15, 2015, Mr. Benner emailed Mr. Henderson that Mr.
9 Scott (at Thermal) was hand-laminating a rush sampling of polyester material with film on both
10 sides for Hello Fresh.⁴⁷ By January 13, 2016, the parties’ business relationship ended, and
11 Cellulose was struggling to source film.⁴⁸

12 Between January 15, 2016, and February 29, 2016, Messieurs Benner, Henderson, and Chase,
13 and Trisha Henderson, Marketing Director for Cellulose, engaged in discussions concerning
14 securing patent and trademark protection for the product that was ultimately the subject of the
15 ’007 patent.⁴⁹ Thermal points to three email exchanges that it contends are relevant to the issue of
16 inventorship: Exhibit 24 is an April 26, 2016, email forwarding the June 19, 2015, email exchange
17 between Mr. Benner and Mr. Cardinale (discussed above) about an insulation solution, and
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22 ⁴³ Cardinale Dep., Ex. 6 to Mitchell Decl. – ECF No. 184-4 at 9 (pp. 54:9–55:24), 10 (pp. 57:18–58:9);
23 Scott Dep., Ex. 15 to Mays Decl. – ECF No. 189-16 at 4 (p. 22:8–18), 5 (p. 66:9–17); Scott Dep., Ex.
24 8 to Mitchell Decl. – ECF No. 185-9 at 7 (p. 29:9–20).

25 ⁴⁴ Thermal Suppl. Br. – ECF No. 214 at 3 (citing Email, Ex. 16 to Mays Decl.). The court cannot find
26 the record because it was not tied to an authenticating declaration. The parties do not dispute the facts.

27 ⁴⁵ Emails, Ex. 16 to *id.* – ECF No. 187-3.

28 ⁴⁶ Email, Ex. 17 to *id.* – ECF No. 189-18 at 2–3.

⁴⁷ Emails, Ex. 20 to Mays Decl. – ECF No. 189-21 at 2.

⁴⁸ Emails, Ex. 21 to *id.* – ECF No. 189-22 at 2–3; Emails, Ex. 22 to *id.* – ECF No. 187-4 at 2–3.

⁴⁹ Emails, Ex. 23 to Mays Decl. – ECF No. 189-24 at 2–7.

Exhibits 25 and 26 are emails forwarding exchanges between the parties from May to August 2015.⁵⁰

Mr. Henderson recalls that Mr. Benner conceived of the idea of adhering film to both sides of a fibrous batt.⁵¹ Mr. Benner invoked his Fifth Amendment privilege during his deposition and refused to answer this question: “do you have any idea about what, if any, inventive contributions you made to this CMS patent relative to any of the other co-inventors?”⁵²

Cellulose’s expert testified about whether one of the alleged co-inventorship claim elements was an inherent feature of PET material and thus not an inventive contribution. He said that it was not inherent: it was not always a given and that it was not known in the prior art.⁵³

3. Procedural History

All parties consented to magistrate jurisdiction.⁵⁴ The court held a hearing on August 15, 2024.

GOVERNING LAW

1. Summary-Judgment Law

The court must grant summary judgment where there is no genuine dispute as to any material fact and the moving party is entitled to judgment as a matter of law. Fed. R. Civ. P. 56(a); *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 247–48 (1986). Material facts are those that may affect the outcome of the case. *Anderson*, 477 U.S. at 248. A dispute about a material fact is genuine if there is sufficient evidence for a reasonable jury to return a verdict for the nonmoving party. *Id.* at 248–49.

⁵⁰ Cross-Mot. – ECF Nos. 188–2 at 11 & 189 at 8 (citing Emails, Ex. 24 to Mays Decl. – ECF No 189-25, Ex. 25 to *id.* – ECF No. 187-5, and Ex. 26 to *id.* – ECF No. 187-6 (adding that Thermal never paid for equipment upgrades on samples; Cellulose did).

⁵¹ Henderson Dep., Ex. 3 to Mays Decl. – ECF No. 156-1 at 8 (p. 51:3–5).

⁵² Benner Dep., Ex. 2 to Mays Decl. – ECF No. 152-3 at 13 (p. 13:4–8), 17 (p. 15:14–20).

⁵³ Thermal’s Suppl. Br. – ECF No. 214 at 2 (citing Osswald Dep., Ex. 1 at 39:12–40:6). The testimony is undisputed. Cellulose’s Opp’n to Thermal’s Suppl. Br. – ECF No. 216 at 2 (arguing the issue and not disputing the facts). If this is wrong, the parties can point it out.

⁵⁴ Consents – ECF Nos. 11, 15.

1 The party moving for summary judgment has the initial burden of informing the court of the
2 basis for the motion and identifying portions of the pleadings, depositions, answers to
3 interrogatories, admissions, or affidavits that demonstrate the absence of a triable issue of material
4 fact. *Celotex Corp. v. Catrett*, 477 U.S. 317, 322–23 (1986). To meet its burden, “the moving
5 party must either produce evidence negating an essential element of the nonmoving party’s claim
6 or defense or show that the nonmoving party does not have enough evidence of an essential
7 element to carry its ultimate burden of persuasion at trial.” *Nissan Fire & Marine Ins. Co. v. Fritz*
8 *Cos.*, 210 F.3d 1099, 1102 (9th Cir. 2000); see *Devereaux v. Abbey*, 263 F.3d 1070, 1076 (9th Cir.
9 2001) (“When the nonmoving party has the burden of proof at trial, the moving party need only
10 point out ‘that there is an absence of evidence to support the nonmoving party’s case.’”) (quoting
11 *Celotex*, 477 U.S. at 325). “Where the moving party will have the burden of proof on an issue at
12 trial, the movant must affirmatively demonstrate that no reasonable trier of fact could find other
13 than for the moving party.” *Soremekun v. Thrifty Payless, Inc.*, 509 F.3d 978, 984 (9th Cir. 2007).

14 If the moving party meets its initial burden, then the burden shifts to the nonmoving party to
15 produce evidence supporting its claims or defenses. *Nissan*, 210 F.3d at 1103. “Once the moving
16 party carries its initial burden, the adverse party may not rest upon the mere allegations or denials
17 of the adverse party’s pleading, but must provide affidavits or other sources of evidence that set
18 forth specific facts showing that there is a genuine issue for trial.” *Devereaux*, 263 F.3d at 1076
19 (cleaned up). If the non-moving party does not produce evidence to show a genuine issue of
20 material fact, then the moving party is entitled to summary judgment. *Celotex*, 477 U.S. at 322–23.

21 In ruling on a motion for summary judgment, the court does not make credibility
22 determinations or weigh conflicting evidence. Instead, it views the evidence in the light most
23 favorable to the non-moving party and draws all factual inferences in the non-moving party’s
24 favor. *E.g., Matsushita Elec. Indus. Co. v. Zenith Radio Corp.*, 475 U.S. 574, 587–88 (1986); *Ting*
25 *v. United States*, 927 F.2d 1504, 1509 (9th Cir. 1991).

2. Patents: Correction of Inventorship

“Patent issuance creates a presumption that the named inventors are the true and only inventors.” *Ethicon, Inc. v. United States Surgical Corp.*, 135 F.3d 1456, 1460 (Fed. Cir. 1998); see 35 U.S.C. § 282(a) (“A patent shall be presumed valid.”). “Inventorship is a question of law” based upon underlying questions of fact. *Ethicon*, 135 F.3d at 1460.

“A patented invention may be the work of two or more joint inventors.” *Id.* (citing 35 U.S.C. § 116). “Because conception is the touchstone of inventorship, each joint inventor must generally contribute to the conception of the invention.” *Id.* (cleaned up). “Conception is the formation in the mind of the inventor, of a definite and permanent idea of the complete and operative invention, as it is hereafter to be applied in practice.” *Id.* (cleaned up). “[F]or the conception of a joint invention, each of the joint inventors need not ‘make the same type or amount of contribution’ to the invention.” *Id.* (quoting 35 U.S.C. § 116). “Rather, each needs to perform only a part of the task which produces the invention.” *Id.* “Furthermore, a co-inventor need not make a contribution to every claim of a patent.” *Id.* (citing 35 U.S.C. § 116). “A contribution to one claim is enough.” *Id.* Consequently, “inventorship is determined on a claim-by-claim basis.” *Gemstar–TV Guide Int’l, Inc. v. Int’l Trade Comm’n*, 383 F.3d 1352, 1381 (Fed. Cir. 2004). “Thus, the critical question for joint conception is who conceived, as that term is used in the patent law, the subject matter of the claims at issue.” *Ethicon*, 135 F.3d at 1460.

Allegedly omitted co-inventors “must prove their contribution to the conception of the [patented] claims by clear and convincing evidence.” *Id.* at 1461. A putative inventor’s own testimony “cannot, standing alone, rise to the level of clear and convincing proof.” *Id.* Nor can that of other interested witnesses. *E.g., Lacks Indus., Inc. v. McKechnie Vehicle Components USA, Inc.*, 322 F.3d 1335, 1350 (Fed. Cir. 2003). Instead, “an alleged co-inventor must supply evidence to corroborate his testimony.” *Ethicon*, 135 F.3d at 1461.

“Corroborating evidence may take many forms.” *Ethicon*, 135 F.3d at 1461. Contemporaneous documentary proof of the alleged contribution gives the strongest corroboration. *E.g., Juicy Whip, Inc. v. Orange Bang, Inc.*, 292 F.3d 728, 743 (Fed. Cir. 2002). To corroborate the testimony of interested actors, courts “have consistently required” documentary proof. *Lacks*, 322 F.3d at 1350

1 (“[C]ase law reveals a clear requirement that such oral testimony by interested parties must be
2 corroborated by documentary testimony [C]ourts have consistently required documentary
3 corroboration of oral testimony by interested parties”) (citing, *inter alia*, *The Barbed Wire*
4 *Patent Case*, 143 U.S. 275 (1882)). “Circumstantial evidence about the inventive process may also
5 corroborate.” *Ethicon*, 135 F.3d at 1461. “Additionally, oral testimony of someone other than the
6 alleged inventor may corroborate.” *Id.*

7 “Whether the inventor’s testimony has been sufficiently corroborated is evaluated under a ‘rule
8 of reason’ analysis.” *Id.* “Under this analysis, an evaluation of *all* pertinent evidence must be made
9 so that a sound determination of the credibility of the [alleged] inventor’s story may be reached.”
10 *Id.* (cleaned up).⁵⁵

11 “Importantly, this [rule-of-reason] analysis does not require that every detail of the testimony
12 be independently and conclusively supported” by the corroborating evidence.” *TransWeb, LLC v.*
13 *3M Innovative Props. Co.*, 812 F.3d 1295, 1301–02 (Fed. Cir. 2016) (cleaned up).

14 No single piece of proof need be conclusive. It is not necessary that any one piece of evidence
15 definitively lay out the inventor’s contribution, or show his whole contribution to the inventive
16 process. *Id.* at 1302. The court, again, reads “all pertinent evidence” together, “as a whole,” to
17 decide whether the claimant has raised a triable issue — with the ultimate demand being for “clear
18 and convincing” proof. *Id.*

19 In the end, “there are no hard and fast rules as to what constitutes sufficient corroboration, and
20 each case must be decided on its own facts.” *Id.* at 1302.

21 ANALYSIS

22 The issue is whether Thermal’s evidence establishes clear and convincing proof that Mr.
23 Cardinale is an allegedly omitted co-inventor who contributed to the patent. There is enough
24 corroborating evidence to establish a triable issue of disputed fact on inventorship.
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27 ⁵⁵ This rule-of-reason analysis is sometimes elaborated into the eight specific factors listed in
28 *Woodland Trust v. Flowertree Nursery, Inc.*, 148 F.3d 1368, 1371 (Fed. Cir. 1998). Courts do not
always expressly use the *Woodland Trust* factors. *See, e.g., Gemstar*, 383 F.3d at 1381.

The evidence set forth in the Statement shows that Thermal came to Cellulose to obtain solutions for packaging perishable products (such as food for Hello Fresh) in recyclable insulation solutions. The parties first discussed paper and cotton products, and an email suggesting a PET solution was sent on June 19, 2015, from Cellulose to Thermal. Meanwhile, Cellulose says that it was testing the product — environmentally friendly packaging insulation made entirely of PET fibers with a foldable film — in the first half of 2015.

More specifically, by June 18, 2015, Cellulose says that it was running samples of a PET batt with PET films (sourced by third-party Lenderink) adhered to both sides.⁵⁶ Cellulose’s “Production Setup Form” shows the internal run of samples of the PET batt with the PET film, specifically, a production of a non-woven, one-hundred-percent PET batt with a PET film (called a scrim on the form) applied to both sides of the batt.⁵⁷ That said, it is the Henderson declaration that allows these conclusions. The production form does not on its own allow the conclusion that the film was adhered to both sides of the batt.

First, for this reason, Thermal attacks Cellulose’s evidence as self-serving because it is founded primarily on the testimony of Matthew Henderson, Cellulose’s president and a named inventor, and is at odds with the lack of any documentation referencing the allegedly inventive technique, the parties’ actual back-and-forth conduct (as set forth in the Statement), the lack of any discussion in the email correspondence, and the year’s delay in filing the patent application.⁵⁸

⁵⁶ Henderson Dep., Ex. 4 to Mitchell Dep. – ECF No. 185-5 at 12–13 (pp. 75:24–77:1).

⁵⁷ Henderson Decl., Ex. 2 to Mitchell Decl. – ECF No. 185-3 at 3–4 (¶¶ 5–9) & Production Setup Form, Ex. B to *id.* – ECF No. 185-3 at 10. Mr. Henderson made the production request, the word “scrim” means the polyester film applied to the batt (obtained from Lenderink), the form shows a fibrous batt comprised primarily of thermoplastic fibers (namely, a one-hundred-percent PET batt comprising thirty-percent PET “BiCo” (meaning bicompetent, or binder) fibers and seventy-percent “Polyester 102-00651” fibers, totaling one-hundred percent. Henderson Decl., Ex. 2 to Mitchell Decl. – ECF No. 185-3 at 3–4 (¶¶ 5–9). Thermal also contends that Cellulose was incapable of producing double-sided laminates in mid 2015. Cross-Mot. – ECF No. 189 at 18. The evidence shows that Cellulose was capable of at least producing samples for possible commercial fabrication. Henderson Decl., Ex. 2 to Mitchell Decl. – ECF No. 185-3 at 3–4 (¶¶ 5–9).

⁵⁸ Cross-Mot. – ECF No. 189 at 16.

1 And, it asserts, named inventor Chris Benner lacked awareness of the technique before he spoke
2 with Mr. Cardinale.⁵⁹

3 Second, Mr. Cardinale asserts that his “discussions with Mr. Benner formed the basis for the
4 idea of manufacturing, compressing, and shipping packaging material as a flat panel and allowing
5 the material to resiliently expand.”⁶⁰ He “contributed to the claim element” — “whereby said
6 laminated packaging insulation can be manufactured, compressed, and shipped as a flat panel and
7 allowed to resiliently expand and be folded for insertion into a packaging container” — because he
8 “worked with Chris Benner to experiment with different thicknesses and densities[,] . . .
9 eventually arriving at what [he] felt was an optimal thickness and density.”⁶¹ He had the idea for a
10 PET batt with a PET liner on both sides.⁶²

11 Mr. Cardinale has corroboration about inventorship from his supplier Tim Wilson. It is vague as
12 to time: Mr. Wilson believes they spoke before June 2015, which Cellulose contrasts to Mr.
13 Cardinale’s testimony that he spoke to Chris Benner in July or August 2015, about adhering the film
14 to both sides of the batt.⁶³ This is after the proprietary disclosure on June 19. Mr. Cardinale says
15 that he gave instructions about how to adhere the PET film to the sides of the batt. His cited exhibits
16 show an interest about how printing on the film would hold up to lamination.⁶⁴

17 For context, there is also the reference to the Kangaroo mailer. The reference to it was an ask:
18 it shipped compressed and it expanded, but it was not recyclable. The ask was for a recyclable
19

20 ⁵⁹ Cross-Mot. – ECF No. 189 at 15–16.

21 ⁶⁰ Cardinale Decl. – ECF No. 189-34 at 3 (¶ 7).

22 ⁶¹ *Id.* at 4 (¶ 14).

23 ⁶² *Id.* at 3 (¶¶ 10–11).

24 ⁶³ *Id.* (¶ 10).

25 ⁶⁴ Cross-Mot. – ECF No. 189 at 18 (citing Emails, Ex. 10 to Mays Decl. – ECF No. 189-11 at 2
26 (TS_00001152) (relevance not discernable); Emails, Ex. 11 to *id.* – ECF No. 189-12 at 2
27 (TSS_00001826) (ink and printing issue); Emails, Ex. 12 to *id.* – ECF No. 189-13 at 2
28 (TSS_00003824) (adhering printed film); Emails, Ex. 13 to *id.* – ECF No. 189-14 at 2 (TSS 00001312)
(wrinkling during process); Emails, Ex. 16 to *id.* – ECF No. 187-3 at 2 (CMS0005972) (costs for two-
sided process); Scott Dep., Ex. 15 to Mays Decl. – ECF No. 189-16 at 4 (p. 22:8–18) (did not consider
testing PET batt that didn’t have facing), 5 (p. 66:9–17) (Thermal, not Cellulose, decided to put the
facing on the batt); Scott Dep., Ex. 8 to Mitchell Decl. – ECF No. 185-9 at 7 (p. 29:9–20) (no physical
evidence of seeing Cardinale iron PET films onto PET batts).

product that could compress, but the Kangaroo mailer does not explicitly reflect the invention claimed in the '007 patent where the characteristics of compressibility and resilient expandability are attributes of a packaging insulation that is comprised of a fibrous thermoplastic batt with thermoplastic film adhered to both sides. And conveying to Cellulose what was already known would not be an inventive concept. *Caterpillar v. Sturman Indus., Inc.*, 387 F.3 1358, 1378 (Fed. Cir. 2004) (knowledge taught by prior art is not an inventive concept).

This order does not do a full job of recounting the communications; there were many back-and-forth emails that are corroboration of Mr. Cardinale's claim of inventorship.⁶⁵ They support an inference of joint inventorship and a triable issue of disputed fact on inventorship. For example, the July 6, 2015, email (recounted in the Statement) is seemingly about testing thicknesses and density. On July 23, as recounted in the Statement, Mr. Benner emailed photos after a call the night before. Kevin Chase said that he contributed to this claim limitation but was not employed by Cellulose until August 2015.⁶⁶ Then there is Dr. Osswald's testimony.

* * *

In sum, there are fact disputes that need to be resolved to determine whether there is clear and convincing evidence needed to overcome the statutory presumption of inventorship. The court denies Cellulose summary judgment on Cellulose's counterclaim four.

CONCLUSION

This resolves ECF Nos. 185 and 189. The court denies the cross-motions for summary judgment.

IT IS SO ORDERED.

Dated: September 20, 2020



LAUREL BEELER
United States Magistrate Judge

⁶⁵ See *supra* Statement (discussing the emails).

⁶⁶ Chase Dep., Ex. 28 to Mays Decl. – ECF. No. 189-29 at 6 (p. 29:4:15).